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| APPLICATION NO.       | FILING DATE              | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------------|--------------------------|----------------------|---------------------|------------------|
| 10/530,830            | 04/09/2005               | Menghang Xia         | 21113P              | 2476             |
| 210<br>MERCK AND      | 7590 10/17/200<br>CO INC | 7                    | EXAMINER            |                  |
| P O BOX 2000          |                          |                      | PAK, MICHAEL D      |                  |
| RAHWAY, NJ 07065-0907 |                          | · Y ·                | ART UNIT            | PAPER NUMBER     |
|                       | •                        |                      | 1646                |                  |
|                       |                          |                      |                     |                  |
|                       |                          |                      | MAIL DATE           | DELIVERY MODE    |
|                       |                          |                      | 10/17/2007          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | · .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Application No.                                                                                                                                         | Applicant(s)                                                                      |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--|--|
| Office Action Summary                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10/530,830                                                                                                                                              | XIA ET AL.                                                                        |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Examiner                                                                                                                                                | Art Unit                                                                          |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Michael Pak                                                                                                                                             | 1646                                                                              |  |  |
| Period fo                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | The MAILING DATE of this communication app<br>or Reply                                                                                                                                                                                                                                                                                                                                                                                                                                  | ears on the cover sheet with the                                                                                                                        | correspondence address                                                            |  |  |
| WHIC<br>- Exter<br>after<br>- If NO<br>- Failu<br>Any                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DATE in a sions of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. In period for reply is specified above, the maximum statutory period were to reply within the set or extended period for reply will, by statute, reply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION  36(a). In no event, however, may a reply be will apply and will expire SIX (6) MONTHS from the application to become ABANDON | DN. timely filed m the mailing date of this communication. IED (35 U.S.C. § 133). |  |  |
| Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                         |                                                                                   |  |  |
| 2a) <u></u> □                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Responsive to communication(s) filed on <u>7-26-</u> This action is <b>FINAL</b> . 2b) This Since this application is in condition for allowar closed in accordance with the practice under <i>E</i>                                                                                                                                                                                                                                                                                    | action is non-final.<br>nce except for formal matters, p                                                                                                |                                                                                   |  |  |
| Dispositi                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | on of Claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                         |                                                                                   |  |  |
| 5)<br>6)<br>7)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Claim(s) <u>15-29</u> is/are pending in the application 4a) Of the above claim(s) is/are withdray Claim(s) is/are allowed.  Claim(s) is/are rejected.  Claim(s) is/are objected to.  Claim(s) <u>15-29</u> are subject to restriction and/or                                                                                                                                                                                                                                            | vn from consideration.                                                                                                                                  |                                                                                   |  |  |
| Applicati                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | on Papers                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                         |                                                                                   |  |  |
| 10)[                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | The specification is objected to by the Examiner The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction The oath or declaration is objected to by the Ex                                                                                                                                                                                                                                | epted or b) objected to by the drawing(s) be held in abeyance. So ion is required if the drawing(s) is o                                                | ee 37 CFR 1.85(a).<br>bjected to. See 37 CFR 1.121(d).                            |  |  |
| Priority u                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | nder 35 U.S.C. § 119                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                         |                                                                                   |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No.</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                         |                                                                                   |  |  |
| 2) Notice 3) Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date                                                                                                                                                                                                                                                                                                                                        | 4)  Interview Summar<br>Paper No(s)/Mail [<br>5)  Notice of Informal<br>6)  Other:                                                                      | Date                                                                              |  |  |

## **DETAILED ACTION**

## Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1 claim(s) 15-17, drawn to method for testing with agonist.

Group 2, claim(s) 15-29, drawn to method for testing with antagonist.

The inventions listed as Groups 1-2 do not relate to a single general inventive concept under PCT Rule 13.1 because, pursuant to 37 CFR 1.475(d), the claims of group 1 are considered by the ISA/US to constitute the main invention, and none of the related groups 2 correspond to the main invention because they do not share a special technical feature.

The methods of Group 2 do not share the same or corresponding special technical feature with Group 1, because the method using an agonist is not used by the method of using an antagonist, and each defines a separate invention over the art.

Since Groups 1-2 do not share a special technical feature, unity of invention is lacking.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Claim 19 - calcium channel type species;

Claim 23 – fluorescent indicator species;

Claims 24-26 – detecting step.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The claims are deemed to correspond to the species listed above in the following manner:

Claims 19, 23-26.

The following claim(s) are generic: 15-29.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: each SEQ ID NO:1-3 and 9-18 comprise unique sequences which lack special technical feature.

Art Unit: 1646

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pak, whose telephone number is (571) 272-0879. The examiner can normally be reached on Monday through Friday from 8:30 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Nickol, can be reached on (571) 272-0835.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Pak

Primary Patent Examiner Art Unit 1646

Hichard D-Por

9 October 2007

Page 5